

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

CARNEGIE INSTITUTION OF  
WASHINGTON and M7D CORPORATION,

Plaintiffs,

v.

PURE GROWN DIAMONDS, INC. and  
IIA TECHNOLOGIES PTE. LTD. d/b/a  
IIA TECHNOLOGIES,

Defendants.

Case No. 20-cv-0189 (JSR)

**PUBLIC REDACTED VERSION**

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**DEFENDANTS' MEMORANDUM OF LAW IN OPPOSITION  
TO PLAINTIFFS' MOTION TO DISMISS DEFENDANTS'  
COUNTERCLAIMS AND AFFIRMATIVE DEFENSES**

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## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	FACTUAL BACKGROUND.....	2
A.	The Original Patent.....	2
B.	The Interference Application .....	4
C.	The Reissue Patent.....	6
III.	LEGAL STANDARDS .....	7
A.	Standards Governing Plaintiffs’ Motion to Dismiss.....	7
1.	Motions to dismiss under Rule 12(b)(6) .....	7
2.	Motions to strike an affirmative defense under Rule 12(f).....	8
B.	Standards Governing the Pleading of Inequitable Conduct Defenses .....	8
IV.	ARGUMENT .....	9
A.	Plaintiffs’ Motion Should Be Denied for Incorrectly Applying Legal Standards That Govern Adjudication at Trial, Not Sufficiency of Pleadings.....	9
B.	Defendants Have Pled Sufficient Facts From Which the Court May Reasonably Infer That the Carnegie Scientists, Carnegie’s Corporate Representative, and Carnegie’s Lawyer Specifically Intended to Deceive the USPTO to Secure the Reissue Patent.....	11
C.	Defendants Have Pled Sufficient Facts From Which the Court May, in the Alternative, Reasonably Infer That Li Specifically Intended to Deceive the USPTO in Securing the Original Patent .....	15
D.	Defendants’ Pleadings State the Circumstances Constituting Inequitable Conduct With Sufficient Particularity .....	17
V.	CONCLUSION.....	18

## TABLE OF AUTHORITIES

	Page(s)
<b>Federal Cases</b>	
<i>3D Medical Imaging Systems, LLC v. Visage Imaging, Inc.</i> , 228 F. Supp. 3d 1331 (N.D. Ga. 2017).....	12, 13
<i>Ashcroft v. Iqbal</i> , 556 U.S. 662 (2009).....	7, 8
<i>Brasseler, U.S.A. I., L.P. v. Stryker Sales Corp.</i> , 267 F.3d 1370 (Fed. Cir. 2001).....	12, 13, 17
<i>Exergen Corp. v. Wal-Mart Stores, Inc.</i> , 575 F.3d 1312 (Fed. Cir. 2009).....	8, 9, 11, 16, 17
<i>GEOMC Co. v. Calmare Therapeutics Inc.</i> , 918 F.3d 92 (2d Cir. 2019).....	8, 11
<i>Hoffman-La Roche Inc. v. Lemmon Co.</i> , 906 F.2d 684 (Fed. Cir. 1990).....	17
<i>In re VerHoef</i> , 888 F.3d 1362 (Fed. Cir. 2018).....	15
<i>Intellect Wireless, Inc. v. HTC Corp.</i> , 732 F.3d 1339 (Fed. Cir. 2013).....	13, 16
<i>Iris Corp. v. Japan Airlines Corp.</i> , 769 F.3d 1359 (Fed. Cir. 2014).....	7
<i>LLM Bar Exam, LLC v. Barbri, Inc.</i> , 922 F.3d 136 (2d Cir. 2019).....	7
<i>M. Eagles Tool Warehouse, Inc. v. Fisher Tooling Co.</i> , 439 F.3d 1335 (Fed. Cir. 2006).....	10
<i>Paragon Podiatry Laboratory, Inc. v. KLM Laboratories, Inc.</i> , 984 F.2d 1182 (Fed. Cir. 1993).....	15
<i>PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.</i> , 225 F.3d 1315 (Fed. Cir. 2000).....	14
<i>Therasense, Inc. v. Becton, Dickinson &amp; Co.</i> , 649 F.3d 1276 (Fed. Cir. 2011) (en banc).....	8, 9, 10
<i>Scanner Technologies Corp. v. ICOS Vision Systems Corp.</i> , 528 F.3d 1365 (Fed. Cir. 2008).....	10
<i>Signify North America Corp. v. Reggiani Lighting USA, Inc.</i> , No. 18 Civ. 11098 (ER), 2020 WL 1331919 (S.D.N.Y. Mar. 23, 2020) .....	18

<i>Star Scientific v. R.J. Reynolds Tobacco Co.</i> , 537 F.3d 1357, 1360 (Fed. Cir. 2008).....	9, 10
<i>Town and Country Linen Corp. v. Ingenious Design LLC</i> , No. 18-cv- 5057 (LJL), 2020 WL 3472597 (S.D.N.Y. June 25, 2020) .....	9, 10
<i>Yeda Research &amp; Development Co. v. Imclone Systems Inc.</i> , 443 F. Supp. 2d 570 (S.D.N.Y. 2006).....	14
<b>Federal Statutes</b>	
35 U.S.C. § 102(f).....	15
<b>Other Authorities</b>	
Fed. R. Civ. P. 9.....	8, 9, 11
Fed. R. Civ. P. 12.....	7, 9, 18
37 C.F.R. § 1.56(a).....	17
Manual of Patent Examining Procedure (MPEP) § 1412.04 .....	6, 7
Manual of Patent Examining Procedure (MPEP) § 2001.04 .....	17
Manual of Patent Examining Procedure (MPEP) § 2301 .....	5
<b>List of Exhibits</b>	
Exhibit A U.S. Patent No. RE41,189 to Li et al. (“the reissue patent”) .....	1, 4
Exhibit B U.S. Patent No. 6,811,610 to Frushour et al. (“the original patent”) .....	1
Exhibit C Transcript of the Deposition of Dr. Robert H. Frushour, Ph.D. ....	<i>passim</i>
Exhibit D Phoenix Crystal Corporation Laboratory Notebook .....	3, 5, 6, 14
Exhibit E Combined Declaration and Power of Attorney for Robert H. Frushour and Wei Li Dated May 22, 2002.....	4, 15
Exhibit F Letters Exchanged Between Paul N. Kokulis and James M Singer .....	4, 6, 13
Exhibit G Declaration of Russell Hemley, Ho-Kwang Mao, and Chih-Shiue Yan Dated July 12, 2004 .....	<i>passim</i>
Exhibit H Declaration of Gary Kowalczyk Dated January 15, 2009 .....	6, 7, 13

## I. INTRODUCTION

The investigation by Defendants Pure Grown Diamonds, Inc. and Ila Technologies Pte. Ltd. (collectively, “Defendants”) has led them to the plausible belief that U.S. Patent No. RE41,189 (Ex. A,<sup>1</sup> the “reissue patent”) was obtained by inequitable conduct. The reissue patent began life as U.S. Patent No. 6,811,610 patent (Ex. B, “the original patent”), which issued to Dr. Robert Frushour and his employee, Wei Li. The original patent was assigned to Dr. Frushour’s company, Phoenix Crystal Corporation (“Phoenix”), and was later acquired by a division of General Electric when it bought Dr. Frushour’s company. Eight years after Frushour and Li filed their patent application—and more than four years after the original patent issued—Plaintiff Carnegie Institution of Washington (“Carnegie”) acquired the original patent from its new owner. Carnegie then unilaterally removed Dr. Frushour’s name from the patent, substituting its own scientists as named inventors. The only way Carnegie could do that was by deceiving the U.S. Patent & Trademark Office (“USPTO”).

Carnegie claimed to have supplied Li with raw material, and on that tenuous pretext, falsely claimed under oath that Frushour and Li had stolen from them a process described in the original patent. The USPTO refused to entertain the Carnegie scientists’ claim to inventorship and issued the original patent to Frushour and Li. Years later, to heighten its reputation in the diamond community, Carnegie acquired the original patent and mislead the USPTO into correcting an inventorship “error” that did not exist. The Carnegie scientists, Carnegie’s corporate representative, and Carnegie’s lawyer concealed Carnegie’s earlier failure to lay claim to inventorship. And, without ever contacting Dr. Frushour, they submitted false declarations to

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<sup>1</sup> All Exhibits are attached to the Declaration of J. Preston Long unless otherwise noted.

the USPTO stating they knew Dr. Frushour was not an inventor and claiming Carnegie scientists were.

Defendants' counterclaim and affirmative defense allege the supporting facts for these allegations in great detail. As explained below, those facts provide a plausible basis for Defendants' inequitable conduct allegations. The arguments in Plaintiffs' motion to dismiss contradict established legal standards and case law governing the pleading of inequitable conduct, and they ignore the totality of facts that Defendants allege in their pleadings.

## II. FACTUAL BACKGROUND

### A. The Original Patent

Dr. Robert Frushour, Ph.D., is an accomplished scientist who holds 20 patents for high pressure high temperature ("HPHT") diamond processes. Ex. C, Frushour Tr. at 24:5-26:19. He recalls that, in the early 2000s, he had been [REDACTED] *Id.* at 44:7-45:21. He had also [REDACTED] *Id.* Through his membership in various diamond industry organizations, Frushour learned that labs had begun making single crystal CVD diamond, *see id.*, and he soon realized that gem-quality CVD diamond [REDACTED] *id.* at 31:16-33:23. According to Frushour, the CVD diamonds of that era were typically discolored. *Id.* at 44:7-45:21. Frushour's company, Phoenix, was clarifying natural diamonds through an HPHT annealing treatment, which convinced Frushour that [REDACTED] [REDACTED] *Id.* at 31:16-33:23.

Dr. Frushour's employee, Wei Li, performed a series of HPHT annealing experiments under Dr. Frushour's supervision. *Id.* at 18:17-20:12, 30:24-31:15, 36:6-37:3. Li followed company policy by contemporaneously recording the results of tests and treatments performed on both Type IIa natural diamonds and CVD-grown diamonds in a company notebook. *Id.* at

47:19-50:23; *see also generally* Ex. D, Phoenix Notebook. Dr. Frushour, as founder of Phoenix, still retains those notebooks to this day. *See id.* at 47:19-50:23. [REDACTED]

[REDACTED] Frushour and Li worked to establish the conditions for a viable HPHT process to alter the color of natural diamonds. Ex. D, Phoenix Notebook at RF3-39. By [REDACTED], Frushour and Li had discovered conditions under which natural Type IIa diamond gems reliably turned from brown to clear. *See id.* at RF35-39. [REDACTED], they [REDACTED] again successfully clarified natural Type IIa diamond gems with their process. *See* Ex. C, Frushour Tr. at 59:25-63:25; Ex. D, Phoenix Notebook at RF50-52. Frushour and Li were first able to acquire single-crystal CVD diamonds in [REDACTED]. *See* Ex. C, Frushour Tr. at 44:7-45:21, 64:10-65:8; Ex. D, Phoenix Notebook at RF61. To treat those CVD diamonds, [REDACTED] [REDACTED], and the CVD layer turned clear just as the Type IIa natural diamonds had done. *Compare id.* at 50-52, *with id.* at RF61, RF69-70; Ex. C, Frushour Tr. at 44:7-46:19, 64:1-69:7, 119:21-120:13, 139:16-140:19.

According to Frushour, it was his idea [REDACTED] [REDACTED]. *See* Ex. C, Frushour Tr. at 67:10-15. He hoped that [REDACTED], the CVD diamonds would similarly clarify. *See id.* at 69:16-71:24. Specifically, Frushour stated that [REDACTED] [REDACTED] *Id.* at 44:7-45:21. He looked at the treated CVD diamond and he [REDACTED] *Id.* at 45:22-46:19. He then [REDACTED] *Id.* at 29, 43:6-21; *see also id.* at 29:3-19. Frushour testified

that Li contributed to the invention, [REDACTED]

[REDACTED] *See id.* at 36:6-37:3, 114:5-25.

On May 22, 2002, Frushour and Li signed the same combined declaration and power of attorney, each declaring under penalty of perjury that he is “an original, first and joint inventor” of the application Frushour drafted, U.S. Patent Application No. 10/161,266 (“the ’266 application”). Ex. E, Frushour & Li Decl. at 1; *see also* Ex. C, Frushour Tr. at 38:13-42:18. The same day, they each assigned their right in the application to Phoenix. Frushour and Li filed the ’266 application on June 3, 2002. *See* Ex. A, original patent at (22) (filing date).

Not long after that, GE Superabrasives bought Phoenix from Dr. Frushour, and, on October 1, 2003, Phoenix assigned the ’266 application to GE Superabrasives, Inc. as part of the transfer. GE Superabrasives later split from General Electric and became Diamond Innovations, Inc. (“DI”), retaining ownership of the ’266 application in the process. The USPTO issued the ’266 application as the original patent on November 2, 2004, while owned by DI. *See* Ex. A, original patent at (45) (issue date).

## **B. The Interference Application**

After publication of the ’266 application on December 18, 2003, *see id.* at (65) (date of publication), a several scientists at Carnegie alleged they developed the claimed processing conditions. Drs. Russell J. Hemley, Ho-Kwang Mao, and Chih-shiue Yan (“Carnegie scientists”) enlisted the help of Carnegie’s counsel, Paul Kokulis, who sent a letter to DI, then-owner of the ’266 application. *See* Ex. F, Kokulis & Singer Ltrs. at 3-5. That letter, dated [REDACTED], expressed the Carnegie scientists’ concerns about the inventorship of the ’266 application. *See id.* at 3 (referencing [REDACTED]). DI responded on [REDACTED], through its counsel James Singer, and requested documentation in support of Carnegie’s allegations and showing the details of Carnegie’s contribution. *See id.* at 3-5. Kokulis refused, stating that DI



bore the burden to investigate inventorship. *See id.* at 6-7. Singer disagreed and responded on [REDACTED], again requesting information in support of Carnegie's allegations. *See id.* at 9-10.

On July 13, 2004, Carnegie filed its own patent application—U.S. Patent Application No. 10/889,171 (“the ’171 application”), naming the Carnegie scientists as inventors. Carnegie copied the claims of the ’266 application into the ’171 application in an attempt to provoke an interference proceeding to challenge inventorship. *See* Manual of Patent Examining Procedure (“MPEP”) § 2301. As support for their inventorship claim, the Carnegie scientists prepared and submitted a false declaration to the USPTO. *See generally* Ex. G, Interference Decl.

That interference declaration includes several false statements when compared to Phoenix's contemporaneously prepared lab notebook. For example, in the interference declaration the Carnegie scientists allege they sent three CVD diamonds to Li in April of 2002. *See id.* at ¶ 5. Yet the Phoenix notebook states that Frushour and Li [REDACTED] [REDACTED]. Ex. C, Frushour Tr. at 92:21-93:24; Ex. D, Phoenix Notebook at RF61. The declaration further states that Li “performed HPHT annealing” on Carnegie's diamonds “in accordance with [the Carnegie scientists'] direction.” Ex. G, Interference Decl. at ¶ 5. Yet the HPHT conditions applied to the CVD diamonds [REDACTED]

[REDACTED]. Ex. C, Frushour Tr. at 44:7-46:19, 64:1-69:7, 119:21-120:13, 139:16-140:19. The declaration further alleges that when Li sent the samples back, “color enhancement was not readily apparent.” Ex. G, Interference Decl. at ¶ 5. Yet the results of [REDACTED] in Phoenix's contemporaneously prepared lab notebook show [REDACTED]. Ex. C, Frushour Tr.

at 95:2-96:7; Ex. D, Phoenix Notebook at RF69-70 ([REDACTED])

[REDACTED]).

Kokulis forwarded a copy of the interference declaration to Singer on [REDACTED]. Ex. F, Kokulis & Singer Ltrs. at 11-12. In response, [REDACTED], Singer again asserted that Carnegie had not established its inventorship of the '266 application, specifically referring to [REDACTED] *Id.* at 13-14. The original patent was granted [REDACTED] later, and Carnegie's attempt to provoke an interference failed. In November of 2006, the USPTO rejected Carnegie's '171 application in view of Frushour and Li's original patent application and dismissed Carnegie's interference request. Carnegie abandoned the '171 application shortly thereafter.

### **C. The Reissue Patent**

Carnegie acquired the original patent from DI several years later, on June 30, 2008. On January 30, 2009, Kokulis, at the direction of Carnegie, filed U.S. Patent Application No. 12/362,529 ("the reissue application"), seeking to reissue of the original patent solely to change the inventorship. In that application, Gary Kowalczyk, Carnegie's Director of Administration and Finance, signed a declaration stating that reissue was necessary to correct an inventorship "error" in the original patent by removing Frushour as an inventor and adding the Carnegie scientists. Ex. H, Reissue Decl. at 1.

The USPTO prefers that parties correct inventorship through a certificate of correction, as opposed to using the reissue process. *See* MPEP § 1412.04. A certificate of correction is only available if "all parties are in agreement and the inventorship issue is not contested." *Id.* No one ever approached Frushour to determine whether he would contest removing his name from his own invention. Ex. C, Frushour Tr. at 109:22-110:24. Despite deliberately avoiding any contact with Frushour, Kowalczyk affirmatively represented to the USPTO in the reissue application that

he knew Frushour made no inventive contribution to the original patent. Ex. H, Reissue Decl. at 1. This deliberate misrepresentation was the only way to unilaterally change inventorship because reissue, unlike a certificate of correction, does not require the inventors' consent to remove or add an inventor. *See* MPEP § 1412.04. On April 6, 2010, the USPTO—relying on Kowalczyk's false declaration—granted the reissue patent.

When asked how it made him feel to learn that he was unilaterally removed as an inventor—something Frushour did not know until receiving a subpoena in this action—Dr.

Frushour stated: [REDACTED]

[REDACTED] Ex. C, Frushour Tr. at 111:4-12.

### III. LEGAL STANDARDS

#### A. Standards Governing Plaintiffs' Motion to Dismiss

##### 1. Motions to dismiss under Rule 12(b)(6)

A well-pleaded claim must be plausible on its face. “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). In reviewing a motion to dismiss, a Court must construe the pleading liberally, “accepting factual allegations as true and drawing all reasonable inferences in the claimant's favor.” *LLM Bar Exam, LLC v. Barbri, Inc.*, 922 F.3d 136, 140 (2d Cir. 2019).<sup>2</sup>

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<sup>2</sup> In appeals of patent cases, the Federal Circuit applies the law of the regional circuit—here the Second Circuit—to purely procedural questions not pertaining to patent law, including motions to dismiss under Fed. R. Civ. P. 12(b)(6). *See, e.g., Iris Corp. v. Japan Airlines Corp.*, 769 F.3d 1359, 1361 (Fed. Cir. 2014) (applying Second Circuit law).

## 2. Motions to strike an affirmative defense under Rule 12(f)

The plausibility standard also applies to affirmative defenses, “with the recognition that, as the Supreme Court explained in *Iqbal*, applying the plausibility standard to any pleading is a ‘context-specific’ task.” *GEOMC Co. v. Calmare Therapeutics Inc.*, 918 F.3d 92, 98 (2d Cir. 2019). “The key aspect of the context . . . is that an affirmative defense, rather than a complaint, is at issue.” *Id.* “The pleader of a complaint has the entire time of the relevant statute of limitations to gather facts necessary to satisfy the plausibility standard.” *Id.* “By contrast, the pleader of an affirmative defense has only the 21-day interval to respond to an original complaint [or] the 21-day interval to amend, without court permission, an answer that requires a responsive pleading . . . . That aspect of the context matters.” *Id.* Moreover, where, as here, the facts needed to plead the defense “may not be readily known to the defendant, [that is] a circumstance warranting a relaxed application of the plausibility standard.” *Id.*

### B. Standards Governing the Pleading of Inequitable Conduct Defenses

The elements of inequitable conduct are: “(1) an individual associated with the filing and prosecution of a patent application made an affirmative misrepresentation of a material fact, failed to disclose material information, or submitted false material information; and (2) the individual did so with a specific intent to deceive the PTO.” *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1327 n.3 (Fed. Cir. 2009). Specific intent may be shown “from indirect and circumstantial evidence” because “direct evidence of deceptive intent is rare.” *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc).

A pleading of inequitable conduct “must identify the specific who, what, when, where, and how of the material misrepresentation or omission committed before the PTO.” *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1328 (Fed. Cir. 2009). But “[m]alice, intent, knowledge, and other conditions of mind of a person may be averred generally.” Fed. R. Civ.

P. 9(b). Pleading on “information and belief” is permitted here when “essential information lies uniquely within another party’s control” and “the pleading sets forth the specific facts upon which the belief is reasonably based.” *Exergen*, 575 F.3d at 1330. In the inequitable conduct context, this pleading standard applies to “specific intent to deceive the PTO,” the gravamen of Plaintiffs’ motion. *Id.* at 1327.

At the pleading stage, it is enough if “the pleadings allege sufficient underlying facts from which a court may reasonably infer that a party acted with the requisite state of mind.” *Id.* “A reasonable inference is one that is plausible and that flows logically from the facts alleged, including any objective indications of candor and good faith.” *Id.* at 1329 n.5.

#### IV. ARGUMENT

##### A. Plaintiffs’ Motion Should Be Denied for Incorrectly Applying Legal Standards That Govern Adjudication at Trial, Not Sufficiency of Pleadings

Plaintiffs’ motion is not a summary judgment motion; it is a motion to dismiss. Plaintiffs fail to apply the pleading standards of Fed. R. Civ. P. 9(b), 12(b)(6), and 12(f), which govern here. Instead, Plaintiffs incorrectly apply the “clear and convincing” and “single most reasonable inference” standards that govern adjudication at trial.

Contrary to Plaintiffs’ suggestions otherwise, Defendants do not bear a heavy burden of proving their defense by clear and convincing evidence at the pleading stage. *See* Pls.’ Mem. of Law at 13-15, ECF No. 61. Plaintiffs primary authorities for applying the “clear and convincing evidence” standard at the pleading stage are appeals from final district court judgments on the merits following trial. *See Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1285 (Fed. Cir. 2011) (en banc); *Star Sci. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1360, 1364-65 (Fed. Cir. 2008). Moreover, Plaintiffs mischaracterize *Town & Country Linen Corp. v. Ingenious Design LLC*, No. 18-cv- 5057 (LJL), 2020 WL 3472597, at \*7 (S.D.N.Y. June 25,

2020), suggesting it requires application of the “clear and convincing evidence” standard at the pleading stage. *See* Pls.’ Mem. of Law at 22, ECF No. 61. *Town & Country Linen* merely references *Therasense*’s discussion of the clear and convincing standard, and *Therasense*—an en banc decision by the Federal Circuit—makes clear that standard governs the degree of proof required “[t]o prevail on a claim of inequitable conduct.” *Therasense*, 649 F.3d at 1290 (emphasis added). Nothing in *Therasense* suggests the “clear and convincing” standard governs inequitable conduct pleadings.

The “single most reasonable inference” standard Plaintiffs identify also does not apply at the pleading stage, only to adjudication on the merits at trial. *See id.* at 14-15. Again, Plaintiffs’ alleged support for that heightened standard, *Thersense*, *Star Scientific*, *Scanner Technologies*, and *Eagles Tool*, are all cases in which the Federal Circuit reviewed a final judgment on the merits following either a bench trial or summary judgment. *See Therasense*, 649 F.3d at 1285 (bench trial); *Star Sci.*, 537 F.3d at 1360, 1364-65 (bench trial); *Scanner Techs. Corp. v. ICOS Vision Sys. Corp.*, 528 F.3d 1365, 1368, 1372 (Fed. Cir. 2008) (bench trial); *M. Eagles Tool Warehouse, Inc. v. Fisher Tooling Co.*, 439 F.3d 1335, 1336-38 (Fed. Cir. 2006) (summary judgment).

By incorrectly applying a heightened adjudication standard, Plaintiffs argue that Defendants’ deceptive intent allegations fail to meet a “clear and convincing evidence” trial standard:

And Frushour’s present-day belief about his inventorship status or disagreement with Carnegie are a “far cry” from the clear and convincing evidence that Carnegie made a deliberate decision to withhold material information from the PTO.

Pls.’ Mem. of Law at 22, ECF No. 61. Similarly, Plaintiffs argue that Defendants’ inferences of deceptive intent from the alleged facts are not the “single most reasonable inference”:

An inference of deceptive intent does not “flow[] logically from the facts alleged, including any objective indications of candor and good faith,” *Exergen*, 575 F.3d 1329 n.5, and would not be “the single most reasonable inference able to be drawn from the evidence,” as required to prevail at trial.

*Id.* at 19-20 (quoting *Star Sci.*, 537 F.3d at 1366).

As such, deceptive intent would not be “the single most reasonable inference able to be drawn from the evidence,” as required to prevail at trial. Defendants thus have failed to allege the required facts for an essential element of their inequitable conduct attacks.

*Id.* at 24 (quoting *Star Sci.*, 537 F.3d at 1366).

Thus, Plaintiffs’ analysis fails to apply the governing plausibility standard. This is especially improper where, as here, the full facts needed to plead the affirmative defense are not readily known to Defendants; they are in the possession, custody, or control of Plaintiffs and their scientists, from whom Defendants have had little opportunity to obtain discovery. *See GEOMC*, 918 F.3d at 98. Such circumstances actually warrant “a relaxed application of the plausibility standard,” *id.*, not Plaintiffs’ heightened trial adjudication standards.

**B. Defendants Have Pled Sufficient Facts From Which the Court May Reasonably Infer That the Carnegie Scientists, Carnegie’s Corporate Representative, and Carnegie’s Lawyer Specifically Intended to Deceive the USPTO to Secure the Reissue Patent**

Regardless of the review standard applied, Defendants have sufficiently pled facts from which the Court may reasonably infer that the Carnegie scientists, Carnegie’s corporate representative (Kowalczyk), and Carnegie’s lawyer (Kokulis) specifically intended to deceive the USPTO in securing the reissue patent. Contrary to Plaintiffs’ arguments, Defendants’ deceptive intent allegations are not based on non-existent obligations to the USPTO, *see* Pls.’ Mem. of Law at 16-19, ECF No. 61, but on the totality of facts and circumstances surrounding the conduct of the Carnegie scientists, Kowalczyk, and Kokulis—the who, what, when, where, and why required under Fed. R. Civ. P. 9(b).

For example, the Carnegie scientists and Kowalczyk intentionally misled the USPTO by making false declarations to the USPTO, averring personal knowledge about facts they knew they had not investigated. Courts have found it reasonable to infer deceptive intent under similar facts and circumstances, noting “one should not be able to cultivate ignorance, or disregard numerous warnings that material information or prior art may exist, merely to avoid actual knowledge of that information or prior art. Where one does, deceptive intent may be inferred.” *Brasseler, U.S.A. I., L.P. v. Stryker Sales Corp.*, 267 F.3d 1370, 1383 (Fed. Cir. 2001) (quoting *FMC Corp. v. Hennessy Indus.*, 836 F.3d 521, 526 n.6 (Fed. Cir. 1987)).

For example, in *3D Medical Imaging Sys., LLC v. Visage Imaging, Inc.*, 228 F. Supp. 3d 1331, 1339 (N.D. Ga. 2017), the patent owner’s predecessor-in-interest failed to pay maintenance fees to the USPTO, causing the patent to lapse. *Id.* at 1333. To revive his patent, the patent owner, without knowledge of whether his predecessor’s delay was unintentional and without trying to find out, declared to the USPTO that the delay had been unintentional. *Id.* The court found that the patent owner had committed inequitable conduct. *Id.* at 1339. It reasoned that the patent owner’s declaration was “a misrepresentation” because it “represented that he knew something he did not.” *Id.* at 1338. And the court found, under the “single most reasonable interpretation” standard, that the patent owner’s misrepresentation was made with specific intent to deceive the USPTO because “he proceeded with making a representation of which he admits he had no knowledge.” *Id.* at 1339.

Like the patent owner in *3D Medical*, the Carnegie scientists admitted that they “have no pertinent knowledge of Robert H. Frushour who is listed as an inventor in U.S. Patent Application Publication 2003/0230232.” Ex. G, Interference Decl. at 3. And, similar to the patent owner in *3D Medical*, the Carnegie scientists conducted no investigation into whether Frushour



was properly named as an inventor in the original patent. Carnegie, through its lawyer, deliberately avoided trying to find out. Kokulis repeatedly stated that he and his client had no burden to investigate this issue. *See* Ex. F, Kokulis & Singer Ltrs. at 6, 14. And they did not investigate. Frushour testified that no one ever contacted him about inventorship of the original patent. Ex. C, Frushour Tr. at 109:22-110:24. Nevertheless, like the patent owner in *3D Medical*, Kowalczyk, Kokulis, and the Carnegie scientists submitted false declarations to the USPTO representing affirmative knowledge that Frushour was not an inventor. These facts alleged by Defendants support a plausible inference that Kowalczyk, the Carnegie scientists, and Kokulis had specific intent to deceive the USPTO.

Their “studied ignorance” justifies an inference of deceptive intent. *Brasseler*. 267 F.3d at 1383-84 (affirming district court’s finding of knowingly withholding material information with deceptive intent). Each individual knew Frushour’s inventorship was material; it was the subject of the failed interference on behalf of Carnegie, and it was sole purpose for which Carnegie filed the reissue application. In furtherance of those attempts to erase Dr. Frushour as an inventor, the Carnegie scientists, Carnegie’s corporate representative (Kowalczyk), and Carnegie’s lawyer (Kokulis) chose to submit sworn declarations to the USPTO representing that the Carnegie scientists and Kowalczyk had knowledge they did not. *See generally* Ex. G, Interference Decl. at ¶ 8; Ex. H, Reissue Decl. at 1.

This “pattern of deceit” further strengthens an inference of intent to deceive. *Intellect Wireless, Inc. v. HTC Corp.*, 732 F.3d 1339, 1345 (Fed. Cir. 2013). For example, the interference declaration states that the Carnegie scientists contacted Li in April 2002, requesting that he perform HPHT annealing on three single crystal CVD diamonds. Ex. G, Interference Decl. at ¶ 5. Phoenix’s contemporaneous lab notebook instead shows [REDACTED]

See Ex. D, Phoenix Notebook at RF61, RF69-70. In those treatments,

*Id.* at RF69-70; *see also id.* at RF50-52.

The interference declaration also asserts that the Carnegie scientists “directed Dr. Li to carry out” these treatments (assuming the diamonds treated were Carnegie’s CVD diamonds allegedly sent in April). Ex. G, Interference Decl. at ¶ 5. This statement suggests that the Carnegie scientists conceived of the pressure and temperature conditions for the annealing—conditions central to the patent’s claims. *See PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1320 (Fed. Cir. 2000) (affirming a finding of intent to deceive where patentee minimized the contributions of a lab that did more than just provide a source of “raw materials”). All evidence, however, indicates that Frushour and Li’s treatments

. See Ex. D, Phoenix Notebook at RF50-52, RF61, RF69-70. Frushour, not the Carnegie scientists, was involved in helping Li develop the temperature, pressure, and times for that process. Ex. C, Frushour Tr. at 36:6-22, 67:10-16, 113:17-20.

Given that Frushour and Li, the Carnegie scientists’ statement that they “directed Dr. Li to perform” the claimed processes is a falsehood or, at best, a misrepresentation of the Carnegie scientists’ contribution to the process performed on the CVD diamonds. *Cf. Yeda Research & Development Co. v. Imclone Sys. Inc.*, 443 F. Supp. 2d 570, 625 (S.D.N.Y. 2006) (rejecting a claim to inventorship “premised on the contribution of one of the raw materials that gave rise to [a] patent for a method of that material’s use”). The Carnegie scientists’

misrepresentations are made more egregious by the fact that the USPTO examiner could not investigate those facts. *See Paragon Podiatry Lab., Inc. v. KLM Labs., Inc.*, 984 F.2d 1182, 1191 (Fed. Cir. 1993) (“The inference [of specific intent to deceive] arises not simply from the materiality of the affidavits, but from the affirmative acts of submitting them, their misleading character, and the inability of the examiner to investigate the facts.”).

In view of the foregoing, Defendants have sufficiently pled facts from which the Court may reasonably infer that the Carnegie scientists, Kowalczyk, and Kokulis specifically intended to deceive the USPTO by withholding material information, failing to investigate Frushour’s contributions, and making false statements.

**C. Defendants Have Pled Sufficient Facts From Which the Court May, in the Alternative, Reasonably Infer That Li Specifically Intended to Deceive the USPTO in Securing the Original Patent**

Defendants have also sufficiently pled, in the alternative, that Li committed inequitable conduct during prosecution of the ’266 application. The Carnegie scientists asserted that “[a]ll of the HPHT annealing processes done on Carnegie’s single CVD diamonds were done [by Li] at our direction,” Ex. G, Interference Decl. at ¶ 6. If true (although it contradicts the contemporaneous evidence), then it is plausible that Li knew the Carnegie scientists, not Li and Frushour, were the true inventors of the original patent. Had Li disclosed this information to the USPTO, the examiner would have rejected the ’266 application under 35 U.S.C. § 102(f). *See, e.g., In re VerHoef*, 888 F.3d 1362, 1363 (Fed. Cir. 2018). Because Li failed to do so, however, he derogated his duty to disclose and made a false statement to the USPTO. *See* Ex. E, Frushour & Li Decl. at 1-2 (Li averring under the penalty or perjury that he believed he and Dr. Frushour were “original, first, and joint inventor[s]. . . of the subject matter which is claimed” in the application for the original patent).

Defendants have sufficiently pled Li's deceptive intent, in the alternative, by alleging "sufficient underlying facts from which a court may reasonably infer that [Li] acted with the requisite" intent. *Exergen Corp.*, 575 F.3d at 1327. For example, if true, Li never shared the true inventorship with Frushour, and he signed, under penalty of perjury, a joint oath of inventorship form with Frushour, despite (again, if the Carnegie scientists are to be believed) knowing Frushour contributed nothing to the invention. *See generally* Ex. G, Interference Decl.

According to the interference declaration, Li also concealed the '266 application from the Carnegie scientists. *See id.* at ¶ 8. Plaintiffs argue that "any supposed belief by Carnegie Scientists does not speak to Li's state of mind." Pls.' Mem. of Law at 25, ECF No. 61. True or not, the interference declaration alleges Li engaged in certain conduct and suggests the Carnegie scientists believed Li acted with deceptive intent. *See* Ex. G, Interference Decl. at ¶¶ 5-8. The declaration states that "Li refused to tell us where he sent our diamonds" when he did not return them "for about three months." *Id.* at ¶ 6. It continues that "Li never informed us that he filed" the '266 application "even though we had extensive contact with [him] prior to and after" its filing. *Id.* at ¶ 8. These statements, while irrelevant to inventorship, if true, suggest a "pattern of deceit" on Li's part, strengthening the inference of an intent to deceive. *Intellect Wireless*, 732 F.3d at 1345.

Plaintiffs seek to attribute Li's failure to disclose material information to ignorance of the "intricacies of inventorship."<sup>3</sup> Pls.' Mem. of Law at 24, ECF No. 61. That rationale is unavailing

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<sup>3</sup> Plaintiffs also seek to excuse Li's silence because "Frushour testified that he did not speak to Li before listing him as an inventor of the '266 Application." Pls.' Mem of Law at 24, ECF No. 61. Neither logic nor the cited testimony bear that out. For example, Frushour testified "I just told [Li] I *was going* to add his name to the patent . . . Hey, Wei, I'm *going to* add you to this patent." Ex. 1, Frushour Tr. at 113:9-25 (emphases added). Li signed the inventors' oath more than a week before the '266 application was filed; his status as inventor was not a surprise. More

because “inventors represented by counsel are presumed to know the law.” *Brasseler*, 267 F.3d at 1385. Plaintiffs also seek to excuse Li because he may have been “following the instructions his employer (Frushour) or Phoenix Crystal’s patent counsel.” Pls.’ Mem. of Law at 24, ECF No. 61. Plaintiffs provide no basis for this suggestion, and under the legal standards governing Plaintiffs’ motion, all reasonable inferences must be drawn in Defendants’ favor, not Plaintiffs’. In any event, Defendants’ pleadings need only support a reasonable inference of deceptive intent to support an allegation of inequitable conduct. *Exergen Corp.*, 575 F.3d at 1327. Defendants have exceeded that burden. Under Defendants’ alternative theory, Li’s inequitable conduct with respect to the ’266 application taints not just the original patent, but also the reissue patent, because inequitable conduct cannot be cured by reissue. *Hoffman-La Roche Inc. v. Lemmon Co.*, 906 F.2d 684, 688-89 (Fed. Cir. 1990).

**D. Defendants’ Pleadings State the Circumstances Constituting Inequitable Conduct With Sufficient Particularity**

Contrary to Plaintiffs’ assertion otherwise, *see* Pls.’ Mem. of Law at 19, ECF No. 61, Defendants’ pleadings properly identify the specific individuals owing a duty of candor to the USPTO who committed the material misrepresentations and omissions—the Carnegie scientists, Carnegie’s corporate representative (Kowalczyk), and Carnegie’s lawyer (Kokulis), or, in the alternative, Li. *See* Defs.’ Amended Defenses & Counterclaims at ¶¶ 22-51, ECF No. 56. Defendants do not point at these individuals or Carnegie in the alternative using an ambiguous “and/or”; instead, Defendants have specified in great detail how each and every one of those specific individuals engaged in inequitable conduct. Plaintiffs incorrectly confuse Defendants’ detailed allegations of multiple instances of inequitable conduct for allegations writ large,

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to the point, Li’s duty to disclose extended far beyond when he and Frushour filed the ’266 application. *See* 37 C.F.R. § 1.56(a); MPEP § 2001.04.

without specificity, and in the alternative. Accordingly, Plaintiffs' cited cases are inapposite. *See, e.g., Signify North Am. Corp. v. Reggiani Lighting USA, Inc.*, No. 18 Civ. 11098 (ER), 2020 WL 1331919, at \*6-\*7 (S.D.N.Y. Mar. 23, 2020).

## V. CONCLUSION

For the foregoing reasons, Defendants request that the Court deny Plaintiffs' motion to dismiss under Fed. R. Civ. P. 12(b)(6) and their motion to strike under Fed. R. Civ. P. Rule 12(f).

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Respectfully submitted,

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